

WHAT IS CLAIMED IS:

1. An apparatus for waking an individual in a manner that promotes said individual's well being comprising:
 - (a) at least one sensor operative to measure at least one parameter correlated to said individual's sleep level; and
 - (b) a controller capable of being set by said individual with a final wakeup time, said controller operative to control an introduction of at least one stimulus at a stimulus introduction time prior to the final wakeup time and, using said measured parameter to control an intensity of the introduced stimulus, so as to wake said individual gradually over a period of time between the stimulus introduction time and the final wakeup time.
2. An apparatus according to claim 1, wherein the parameter measured by said sensor is motion and said sensor further comprises one of: an ultrasonic motion detector and an infrared motion detector.

3. An apparatus according to claim 1, wherein when there is more than one stimulus, the intensity of each stimulus may be independently controlled.
4. An apparatus according to claim 1, wherein said introduced stimulus is controlled so as to wake said individual substantially close to the final wakeup time.
5. An apparatus according to claim 1, wherein the parameter measured by said sensor is at least one of: motion, brain waves, skin potential, skin resistance, muscle tone, eye movement, heart rate and breathing rate of said individual.
6. An apparatus according to claim 1, which further comprises a user interface comprising an input mechanism operative to receive input from said individual and an output mechanism operative to communicate information to said individual.
7. An apparatus according to claim 6, wherein said input mechanism is at least one of: a voice recognition system, a keypad, a touch screen interface, a remote control device and a plurality of buttons and switches.
8. An apparatus according to claim 6, wherein said output

mechanism is at least one of: a liquid crystal display, a light emitting diode display, an analog clock display, a plasma screen display, a cathode ray tube display, an audio output device and a plurality of switch and button indicators.

9. An apparatus according to claim 6, wherein said input mechanism is operative to receive input information from said individual related to at least one of: the final wakeup time, the particular set of stimuli desired, the desired relative intensity of each stimulus selected, the stimulus introduction time, an actual time, a date, a status as to whether said apparatus is armed, a personal sleep sensitivity level of said individual, a recent sleep history of said individual, an ambient stimulus level in said individual's sleeping environment and a seasonal amount of daylight.
10. An apparatus according to claim 6, wherein said output mechanism is operative to communicate information to said individual related to at least one of: the final wakeup time, the particular set of stimuli desired, the relative intensity of each stimulus selected, the stimulus introduction time, an actual time, a date, a

status as to whether said apparatus is armed, a personal sleep sensitivity level of said individual, a recent sleep history of said individual, an ambient stimulus level in said individual's sleeping environment and a seasonal amount of daylight.

11. An apparatus according to claim 1, wherein the introduced stimulus is at least one of: a heat stimulus, a light stimulus, a sound stimulus, an olfactory stimulus and a tactile stimulus.
12. An apparatus for waking an individual in a manner that promotes said individual's well being comprising:
 - (a) a detection system operative to measure at least one parameter correlated to said individual's sleep level; and
 - (b) a controller capable of being set by said individual with a final wakeup time, said controller operative to control an introduction of at least one stimulus at a stimulus introduction time prior to the final wakeup time and, using said measured parameter which is constantly updated , to continuously control an intensity of the

introduced stimulus over a period of time between the stimulus introduction and the final wakeup time, so as to wake said individual gradually over said period of time.

13. An apparatus for waking an individual in a manner that promotes their well being comprising:

- (a) a detection system operative to measure at least one parameter correlated to said individual's sleep level; and
- (b) a controller capable of being set by said individual with a final wakeup time, said controller operative to control an introduction of at least one stimulus at a stimulus introduction time prior to the final wakeup time and, using said measured parameter which is constantly updated, to continuously control an intensity of the introduced stimulus over a period of time between the stimulus introduction and the final wakeup time, so as to wake said individual gradually over said period of time in a manner that minimizes shock to said

user's physiological systems as said individual crosses their personal continuum between being asleep and being awake.

14. A method of waking an individual in a manner that promotes said individual's well being, said method comprising the steps of:
 - (a) setting a desired final wakeup time;
 - (b) measuring at least one parameter correlated to said individual's sleep level;
 - (c) introducing at least one stimulus to said individual's sleeping environment at a stimulus introduction time prior to said final wakeup time;
 - (d) using said measured parameter to control an intensity of the introduced stimulus, so as to wake said individual gradually over a period of time between the stimulus introduction time and the final wakeup time.
15. A method according to claim 14, wherein said measuring step further comprises detecting motion using one of: an ultrasonic motion detector and an infrared motion detector.

16. A method according to claim 14, wherein when there is more than one stimulus, the intensity of each stimulus may be independently controlled.
17. A method according to claim 14, wherein the introduced stimulus is controlled so as to wake said individual substantially close to the final wakeup time.
18. A method according to claim 14, wherein the parameter measured during said measuring step is one of: motion, brain waves, skin potential, skin resistance, muscle tone, eye movement, heart rate and breathing rate of said individual.
19. A method according to claim 14, which further comprises the step of receiving input information from said individual, said input information being related to at least one of: the final wakeup time, the particular set of stimuli desired, the desired relative intensity of each stimulus selected, the stimulus introduction time, an actual time, a date, a status that is one of armed and disarmed, a personal sleep sensitivity level of said individual, a recent sleep history of said individual, an ambient stimulus level in said individual's sleeping environment and a seasonal amount of daylight.

20. A method according to claim 14, which further comprises the step of communicating output information to said individual, said output information being related to at least one of: the final wakeup time, the particular set of stimuli desired, the relative intensity of each stimulus selected, the stimulus introduction time, an actual time, a date, a status that is one of armed and disarmed, a personal sleep sensitivity level of said individual, a recent sleep history of said individual, an ambient stimulus level in said individual's sleeping environment and a seasonal amount of daylight.

21. A method according to claim 14, wherein the stimulus introduced during said introducing step is at least one of: a heat stimulus, a light stimulus, a sound stimulus, an olfactory stimulus and a tactile stimulus.

22. A method of waking an individual in a manner that promotes said individual's well being, said method comprising the steps of:

- (a) setting a desired final wakeup time;
- (b) measuring at least one parameter correlated to said individual's sleep level;
- (c) introducing at least one stimulus to said

individual's sleeping environment at a stimulus introduction time prior to said final wakeup time; and

- (d) using said measured parameter which is constantly updated to continuously control an intensity of the introduced stimulus over a period of time between the stimulus introduction time and the final wakeup time, so as to wake said individual gradually over said period of time.

23. A method of waking an individual in a manner that promotes said individual's well being, said method comprising the steps of:

- (a) setting a desired final wakeup time;
- (b) measuring at least one parameter correlated to said individual's sleep level;
- (c) introducing at least one stimulus to said individual's sleeping environment at a stimulus introduction time prior to said final wakeup time; and

(d) using said measured parameter to continuously control an intensity of the introduced stimulus over a period of time between the stimulus introduction time and the final wakeup time, so as to wake said individual gradually over said period of time in a manner that minimizes shocks to said user's physiological systems as said individual crosses their personal continuum between being asleep and being awake.